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CURRENT INDUSTRIAL REPORTS

Manufacturers' Shipments, Inventories, and Orders

January 1971



U.S. DEPARTMENT OF COMMERCE / Bureau of the Census

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New Orders for manufactured products in January at \$57.9 billion increased 2.5 percent or \$1.4 billion from December, after seasonal adjustment. Shipments increased \$1.1 billion or 2.0 percent to \$56.9 billion from \$55.8 billion in December. The backlog of unfilled orders increased \$900 million to \$83.6 billion at the end of January. Manufacturers' inventories declined \$400 million to \$99.3 billion from \$99.7 billion at the end of December. The inventories to shipments ratio declined to 1.74 from 1.79 in December.

For the three months ending with January, the average change in new orders represents an increase of 2.2 percent compared with a decrease of 1.7 percent for the three months ending with October and an increase of 2.3 percent for the three months ending with July.

NEW ORDERS

New Orders for durable goods at \$31.8 billion increased 3.9 percent or \$1.2 billion from \$30.6 billion in December. The December new orders figure of \$30.6 billion is an upward change of \$600 million from the previously published total of \$30.0 billion, reflecting revised data from respondents. New orders for transportation equipment increased \$1.0 billion as both the automotive and the shipbuilding and railroad equipment groups increased while the aerospace industry remained virtually unchanged. New orders for primary metals increased \$500 million to \$5.4 billion while new orders for the machinery industries declined \$300 million to \$9.5 billion.

Among the supplementary series, new orders for defense products increased \$200 million to \$2.2 billion and for producers' capital goods \$500 million to \$7.0 billion, both influenced primarily by the shipbuilding and railroad equipment group. New orders for household durables decreased \$100 million to \$2.1 billion. (See Chart 1)

Chart 1 - Manufacturers' New Orders (Seasonally Adjusted)

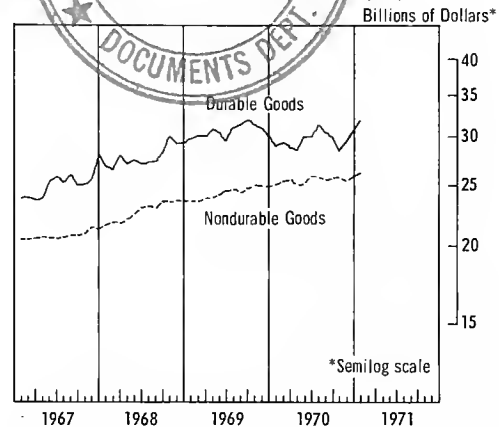
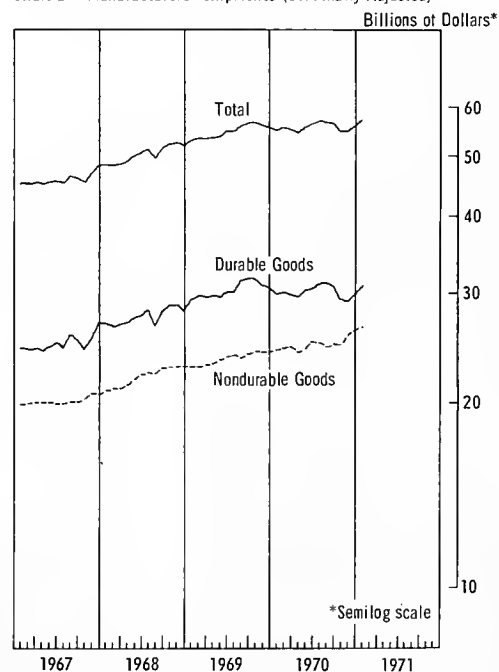


Chart 2 - Manufacturers' Shipments (Seasonally Adjusted)



SHIPMENTS

Shipments of durable goods increased \$800 million or 2.8 percent to \$30.9 billion in January. Shipments of transportation equipment increased \$200 million to \$7.4 billion as an increase in the automotive sector was partially offset by a decrease in aerospace. Shipments in the machinery industries increased \$200 million to \$9.6 billion. Shipments of most other major sectors also registered increases. (See Chart 2)

UNFILLED ORDERS

Unfilled orders for durable goods increased \$900 million to \$80.4 billion from \$79.5 billion at the end of December. Unfilled orders for primary metals increased \$700 million to \$7.6 billion. Unfilled orders for transportation equipment increased \$600 million, primarily in the shipbuilding and railroad equipment group. Unfilled orders for fabricated metal products declined \$300 million to \$10.8 billion. (See Chart 3)

INVENTORIES

Inventories in both the durable and nondurable goods sectors declined, to \$65.3 billion and \$34.0 billion respectively. At the all manufacturing level, materials and supplies and work-in-process inventories declined while finished goods remained virtually unchanged. (See Chart 4)

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industries categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for February is scheduled for release on March 19, 1971 and the full report is scheduled for release on March 30.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Chart 3 – Manufacturers' Unfilled Orders (Seasonally Adjusted)

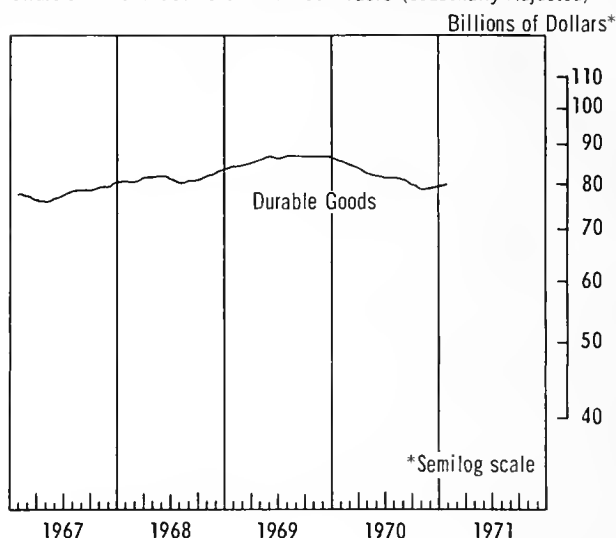


Chart 4 – Total Inventory (Seasonally Adjusted)

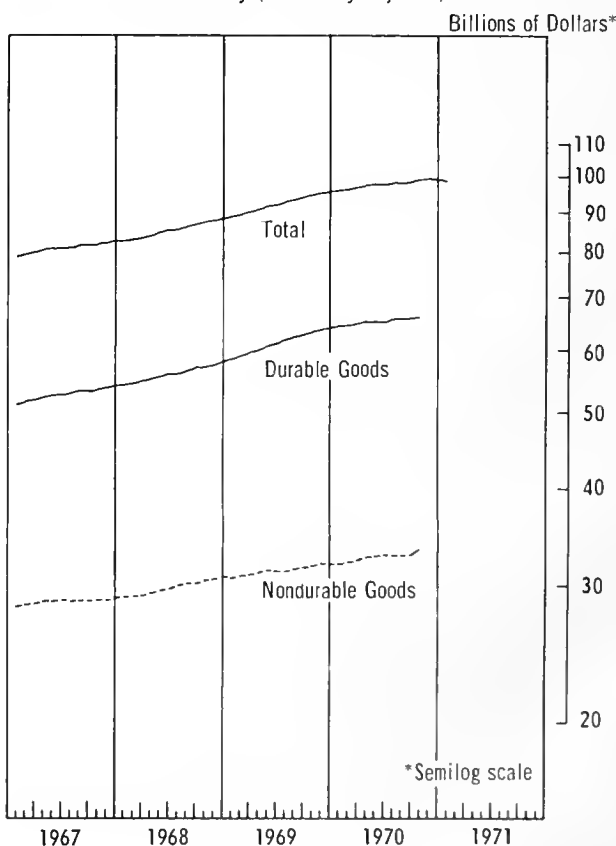


Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1971 ^P	Dec. 1970 ^R	Nov. 1970	Jan. 1971 ^P	Dec. 1970 ^R	Jan. 1970	Jan. 1971 ^P	Dec. 1970 ^R	Nov. 1970	Jan. 1971 ^P	Dec. 1970 ^R	Jan. 1970
	Shipments						Total inventories					
All manufacturing industries:												
Total.....	56,922	55,820	54,068	53,314	54,154	51,622	99,260	99,708	100,032	99,365	99,211	96,271
Total, excluding transportation....	49,546	48,652	47,804	46,025	46,728	44,954	84,387	84,679	84,841	84,474	84,288	80,589
Durable goods industries, total.....	30,858	30,024	28,815	28,812	29,485	27,953	65,273	65,642	65,920	65,086	65,176	63,702
Stone, clay, and glass products.....	1,650	1,590	1,454	1,408	1,421	1,250	2,641	2,648	2,688	2,660	2,604	2,511
Primary metals, total.....	4,737	4,621	4,452	4,598	4,269	4,931	9,117	8,862	8,983	9,233	9,096	8,214
Blast furnaces, steel mills.....	2,259	2,200	2,009	2,214	1,958	2,365	4,924	4,717	4,823	5,043	4,944	4,367
All other primary metals.....	2,478	2,421	2,443	2,384	2,311	2,566	4,193	4,145	4,160	4,190	4,152	3,847
Fabricated metal products, total.....	3,382	3,263	3,294	3,031	3,157	2,969	6,922	6,928	7,011	6,785	6,740	6,561
Metal cans, barrels, and drums.....	382	315	301	314	279	266	840	842	827	769	753	720
Machinery, except electrical, total.....	5,683	5,275	5,291	5,163	5,297	5,017	14,013	14,127	14,043	14,011	14,039	13,271
Engines and turbines.....	517	484	509	401	548	362	989	1,031	995	1,021	995	953
Farm machinery and equipment.....	481	453	387	450	398	455	992	1,010	1,020	1,022	1,020	982
Construction, mining, and material handling equipment.....	859	675	682	766	617	690	2,456	2,459	2,416	2,473	2,471	2,268
Metalworking machinery.....	316	317	292	284	340	316	1,086	1,116	1,125	1,082	1,099	1,124
General industrial machinery.....	573	566	545	516	526	501	1,164	1,159	1,155	1,159	1,155	1,108
Electrical machinery, total.....	3,945	4,110	4,047	3,654	4,167	3,386	9,366	9,744	9,734	9,235	9,566	9,254
Electrical transmission and distribution equipment and industrial apparatus.....	718	823	783	651	814	596	2,096	2,128	2,141	2,097	2,115	1,938
Household appliances, including radio and TV.....	788	813	751	715	797	671	1,978	2,137	2,160	1,937	2,067	2,051
Communication equipment.....	1,258	1,187	1,249	1,156	1,267	986	2,694	2,786	2,789	2,645	2,739	2,757
Transportation equipment, total.....	7,376	7,168	6,264	7,289	7,426	6,668	14,873	15,029	15,191	14,891	14,923	15,682
Motor vehicles and parts.....	4,270	3,879	2,853	4,386	3,816	3,666	4,105	4,212	4,097	4,199	4,216	4,307
Aircraft, missiles, and parts.....	2,421	2,599	2,720	2,279	2,897	2,444	8,588	8,568	8,858	8,513	8,494	9,451
Instruments and related products.....	1,126	1,039	1,078	994	1,084	1,035	2,636	2,633	2,626	2,589	2,588	2,432
All other durable goods industries.....	2,959	2,958	2,935	2,675	2,664	2,697	5,705	5,671	5,644	5,682	5,620	5,774
Nondurable goods industries, total.....	26,064	25,796	25,253	24,502	24,669	23,669	33,987	34,066	34,112	34,279	34,035	32,569
Food and kindred products, total.....	8,705	8,774	8,653	8,265	8,673	8,088	7,857	7,708	7,743	8,047	7,982	7,414
Meat products.....	1,687	1,661	1,689	1,651	1,663	1,752	783	748	760	818	769	834
Tobacco products.....	475	495	454	429	492	414	2,197	2,179	2,223	2,331	2,259	2,302
Textile mill products.....	1,846	1,818	1,718	1,672	1,724	1,626	3,244	3,284	3,330	3,237	3,183	3,448
Paper and allied products, total.....	2,485	2,388	2,363	2,380	2,294	2,239	2,839	2,831	2,784	2,789	2,793	2,625
Pulp, paper, etc.....	1,115	1,092	1,030	1,073	1,056	978	1,113	1,104	1,093	1,094	1,091	1,019
Chemicals and allied products, total.....	4,197	4,146	4,070	3,972	3,696	3,797	7,172	7,188	7,154	7,248	7,193	6,631
Industrial chemicals, except pigments...	1,470	1,387	1,372	1,384	1,278	1,327	2,316	2,329	2,332	2,357	2,346	2,214
Petroleum and coal products.....	2,355	2,315	2,166	2,260	2,292	2,167	2,530	2,539	2,555	2,511	2,546	2,297
Rubber and plastics products, n.e.c.....	1,464	1,358	1,431	1,364	1,306	1,390	1,944	1,968	1,959	1,954	1,962	1,922
All other nondurable goods industries.....	4,537	4,502	4,398	4,160	4,192	3,948	6,204	6,369	6,364	6,162	6,117	5,930
	New orders						Unfilled orders					
All manufacturing industries:												
Total.....	57,858	56,431	54,291	54,938	54,679	51,356	83,564	82,626	82,014	83,494	81,871	88,146
Total, excluding transportation....	49,886	49,414	47,981	47,126	47,499	45,057	55,534	55,194	54,431	55,532	54,431	56,942
Durable goods industries, total.....	31,800	30,602	29,009	30,455	30,003	27,766	80,408	79,462	78,883	80,397	78,755	85,258
Primary metals, total.....	5,420	4,962	4,544	5,731	4,909	4,921	7,597	6,914	6,573	7,899	6,765	7,491
Blast furnaces, steel mills.....	2,919	2,586	2,057	3,048	2,580	2,233	4,511	3,851	3,465	4,754	3,720	3,632
Fabricated metal products.....	3,103	3,291	3,333	3,258	3,097	2,977	10,808	11,088	11,060	10,862	10,836	10,454
Machinery, except electrical, total.....	5,483	5,412	5,351	5,107	5,376	5,084	15,640	15,839	15,702	15,607	15,661	17,060
Engines and turbines.....	540	498	549	401	555	432	4,750	4,727	4,714	4,749	4,749	4,851
Construction, mining, and material handling equipment.....	763	631	672	725	566	722	2,142	2,237	2,280	2,118	2,159	2,159
Metalworking machinery.....	297	299	262	272	304	291	1,168	1,187	1,205	1,155	1,166	1,754
General industrial machinery.....	475	670	581	453	626	501	1,552	1,650	1,546	1,551	1,614	1,643
Electrical machinery, total.....	4,017	4,354	4,051	3,564	4,345	3,456	13,221	13,148	12,904	13,057	13,149	13,471
Electrical transmission and distribution equipment and industrial apparatus.....	744	819	803	646	799	656	3,357	3,331	3,335	3,283	3,289	3,537
Household appliances, including radio and TV.....	769	854	771	729	824	697	548	567	526	532	519	576
Communication equipment.....	1,262	1,464	1,208	1,047	1,478	971	5,677	5,673	5,396	5,654	5,763	5,538
Transportation equipment, total.....	7,972	7,017	6,310	7,812	7,180	6,299	28,030	27,432	27,583	27,962	27,440	31,204
Aircraft, missiles, and parts.....	2,471	2,449	2,610	2,368	2,678	2,082	20,357	20,306	20,456	20,273	20,185	23,801
All other durable goods industries.....	5,805	5,566	5,420	5,183	5,096	5,029	5,112	5,041	5,061	5,010	4,904	5,578
Nondurable goods industries, total.....	26,058	25,829	25,282	24,483	24,676	23,590	3,156	3,164	3,131	3,097	3,116	2,888
Industries with unfilled orders.....	7,236	7,112	6,902	6,765	6,882	6,373	3,156	3,164	3,131	3,097	3,116	2,888
Industries without unfilled orders.....	18,822	18,717	18,380	17,718	17,794	17,217	-	-	-	-	-	-

- Represents zero. ^PPreliminary. ^RRevised.¹Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1971 ^P	Dec. 1970 ^r	Nov. 1970	Jan. 1971 ^P	Dec. 1970 ^r	Jan. 1970	Jan. 1971 ^P	Dec. 1970 ^r	Nov. 1970	Jan. 1971 ^P	Dec. 1970 ^r	Jan. 1970
	Shipments						Total inventories					
All manufacturing industries, total..	56,922	55,820	54,068	53,314	54,154	51,622	99,260	99,708	100,032	99,365	99,211	96,271
Durable goods industries, total.....	30,858	30,024	28,815	28,812	29,485	27,953	65,273	65,642	65,920	65,086	65,176	63,702
Nondurable goods industries, total.....	26,064	25,796	25,253	24,502	24,669	23,669	33,987	34,066	34,112	34,279	34,035	32,569
Industry groups arranged by market categories:												
Home goods and apparel.....	4,789	4,871	4,632	4,295	4,308	4,048	9,813	10,123	10,142	9,713	9,761	9,776
Consumer staples.....	11,122	11,271	11,023	10,541	11,065	10,321	12,952	12,740	12,783	13,219	13,017	12,386
Equipment and defense products, except automotive.....	9,299	8,864	9,125	8,461	9,291	8,225	26,165	26,321	26,404	26,003	26,079	25,794
Automotive equipment.....	4,828	4,443	3,410	4,897	4,323	4,202	5,230	5,344	5,244	5,354	5,344	5,464
Construction materials, supplies, and intermediate products.....	5,016	4,792	4,635	4,267	4,357	3,851	8,242	8,273	8,447	8,222	8,156	7,961
Other materials and supplies and intermediate products.....	21,868	21,579	21,243	20,853	20,810	20,975	36,858	36,907	37,012	36,854	36,854	34,890
Supplementary series: ²												
Household durable goods industries.....	2,110	2,183	2,051	1,939	2,031	1,830	4,995	5,179	5,185	4,943	5,052	5,073
Producers' capital goods industries.....	6,695	6,512	6,567	6,085	6,626	5,782	17,633	17,808	17,719	17,563	17,644	16,391
Defense products industries (old series).....	3,955	4,040	4,230	3,686	4,413	3,695	12,031	12,088	12,341	11,905	11,968	13,014
Defense products (new series)*.....	1,926	2,021	2,036	1,797	2,208	1,672	6,202	6,493	6,675	6,139	6,424	7,422
	New orders						Unfilled orders					
All manufacturing industries, total..	57,858	56,431	54,291	54,938	54,679	51,356	83,564	82,626	82,014	83,494	81,871	88,146
Durable goods industries, total.....	31,800	30,602	29,009	30,455	30,003	27,766	80,408	79,462	78,883	80,397	78,755	85,258
Nondurable goods industries, total.....	26,058	25,829	25,282	24,483	24,676	23,590	3,156	3,164	3,131	3,097	3,116	2,888
Industry groups arranged by market categories:												
Home goods and apparel.....	4,775	4,908	4,650	4,305	4,300	4,061	1,862	1,879	1,841	1,823	1,816	1,948
Consumer staples.....	11,120	11,270	11,031	10,539	11,062	10,317						
Equipment and defense products, except automotive.....	9,889	9,226	9,349	8,863	9,515	8,165	15,444	14,804	14,388	15,242	14,768	14,099
Automotive equipment.....	4,874	4,497	3,286	4,967	4,370	4,168						
Construction materials, supplies, and intermediate products.....	4,726	4,779	4,672	4,348	4,223	3,903	10,738	11,028	11,041	10,721	10,639	10,430
Other materials and supplies and intermediate products.....	22,471	21,751	21,303	21,916	21,209	20,742	25,520	24,915	24,744	25,708	24,647	27,669
Supplementary series: ²												
Household durable goods industries.....	2,110	2,222	2,074	1,967	2,034	1,853	1,516	1,516	1,476	1,481	1,453	1,586
Producers' capital goods industries.....	7,037	6,554	6,873	6,401	6,577	5,993	24,302	23,958	23,915	24,118	23,802	25,005
Defense products industries (old series).....	4,007	4,181	4,077	3,666	4,414	3,316	26,495	26,442	26,302	26,390	26,411	29,824
Defense products (new series)*.....	2,220	2,051	2,016	1,980	2,124	1,723	19,779	19,506	19,475	19,696	19,513	20,413

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historical data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. Preliminary. Revised. Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Producers' capital goods industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), shipbuilding and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the shipbuilding industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and shipbuilding. Thus, it differs from the old series in that it includes defense activity in shipbuilding and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1965-70	
	Dec. 1970 Jan. 1971	Nov.- Dec. 1970	Oct.- Nov. 1970	3 months			12 months Jan. 1970 Jan. 1971	Average rise	Average decline
				Oct. 1970- Jan. 1971	July-Oct. 1970	April-July 1970			
Shipments:									
All manufacturing industries.....	+2.0	+3.2	-1.6	+1.2	-1.2	+1.5	+0.3	+1.3	-1.1
Durable goods industries, total.....	+2.8	+4.2	-1.9	+1.7	-2.1	+1.9	+0.3	+2.0	-1.7
Nondurable goods industries, total.....	+1.0	+2.2	-1.2	+0.7	-0.2	+1.1	+0.3	+1.0	-0.6
Total inventories:									
All manufacturing industries.....	-0.4	-0.3	+0.6	0	+0.4	+0.2	+0.3	+0.7	-0.3
New orders:									
All manufacturing industries.....	+2.5	+3.9	+0.2	+2.2	-1.7	+2.3	+0.6	+1.9	-1.3
Durable goods industries, total.....	+3.9	+5.5	+1.8	+3.7	-3.1	+3.4	+0.8	+3.1	-2.3
Nondurable goods industries, total.....	+0.9	+2.2	-1.6	+0.5	0.0	+1.1	+0.3	+1.0	-0.7
Unfilled orders:									
Durable goods industries, total.....	+1.2	+0.7	+0.2	+0.7	-1.1	-0.4	-0.5	+1.1	-0.7

Table 4.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	Jan. 1971 ^P	Dec. 1970 ^F	Nov. 1970	Jan. 1970	Jan. 1971 ^P	Dec. 1970 ^F	Nov. 1970	Jan. 1970
All manufacturing industries, total.....	1.74	1.79	1.85	1.75	2.40	2.41	2.42	2.58
Durable goods industries, total.....	2.12	2.19	2.29	2.14	2.92	2.92	2.92	3.13
Stone, clay, and glass products.....	1.60	1.67	1.85	1.70	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.92	1.92	2.02	1.60	1.60	1.50	1.05	1.42
Fabricated metals.....	2.05	2.12	2.13	2.03	3.60	3.76	3.70	3.50
Machinery, except electrical.....	2.47	2.68	2.65	2.41	2.75	3.00	2.97	3.11
Electrical machinery.....	2.37	2.37	2.41	2.57	3.35	3.20	3.19	3.73
Transportation equipment.....	2.02	2.10	2.43	2.31	5.98	5.57	5.54	6.66
Instruments and related products.....	2.34	2.53	2.44	2.12	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.30	1.32	1.35	1.28	0.44	0.45	0.46	0.43
Food and kindred products.....	0.90	0.88	0.89	0.85	(X)	(X)	(X)	(X)
Tobacco products.....	4.63	4.40	4.90	4.73	(X)	(X)	(X)	(X)
Textile mill products.....	1.76	1.81	1.94	1.94	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.14	1.19	1.18	1.14	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.71	1.73	1.76	1.64	(X)	(X)	(X)	(X)
Petroleum and coal products.....	1.07	1.10	1.18	1.03	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.33	1.45	1.37	1.28	(X)	(X)	(X)	(X)

(NA) Not available. ^PPreliminary. ^FRevised. (X) Not applicable.¹Excludes the following industries with no unfilled orders: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

Table 5.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1971 ^p	Dec. 1970 ^r	Nov. 1970	Jan. 1971 ^p	Dec. 1970 ^r	Jan. 1970	Jan. 1971 ^p	Dec. 1970 ^r	Nov. 1970	Jan. 1971 ^p	Dec. 1970 ^r	Jan. 1970
	Total						Materials and supplies					
All manufacturing industries, total..	99,260	99,708	100,032	99,365	99,211	96,271	30,143	30,323	30,127	30,239	30,602	29,388
Durable goods industries, total.....	65,273	65,642	65,920	65,086	65,176	63,702	17,849	17,921	17,867	17,750	18,040	17,551
Stone, clay, and glass products.....	2,641	2,648	2,688	2,660	2,604	2,511	854	859	862	858	871	801
Primary metals.....	9,117	8,862	8,983	9,233	9,096	8,214	3,220	3,108	3,190	3,243	3,302	2,922
Machinery (electrical and nonelectrical).	23,379	23,871	23,777	23,246	23,605	22,525	5,767	5,719	5,640	5,696	5,701	5,430
Transportation equipment.....	14,873	15,029	15,191	14,891	14,923	15,682	3,147	3,199	3,208	3,161	3,190	3,276
All other durable goods industries.....	15,263	15,232	15,281	15,056	14,948	14,770	4,861	5,036	4,967	4,792	4,976	5,122
Nondurable goods industries, total.....	33,987	34,066	34,112	34,279	34,035	32,569	12,294	12,402	12,260	12,489	12,562	11,837
Chemicals and allied products.....	7,172	7,188	7,154	7,248	7,193	6,631	2,383	2,413	2,355	2,407	2,426	2,242
Petroleum and coal products.....	2,530	2,539	2,555	2,511	2,546	2,297	614	595	574	596	583	518
Rubber and plastics products, n.e.c.....	1,944	1,968	1,959	1,594	1,962	1,922	621	628	635	616	618	588
All other nondurable goods industries....	22,341	22,371	22,444	22,566	22,334	21,719	8,676	8,766	8,696	8,870	8,935	8,489
	Work in process						Finished goods					
All manufacturing industries, total..	34,807	35,066	35,524	34,668	34,643	34,935	34,310	34,319	34,381	34,458	33,966	31,948
Durable goods industries, total.....	29,917	30,149	30,551	29,804	29,810	29,884	17,507	17,572	17,502	17,532	17,326	16,267
Stone, clay, and glass products.....	399	397	401	399	374	381	1,388	1,392	1,425	1,403	1,359	1,329
Primary metals.....	3,083	3,003	3,036	3,120	3,043	2,858	2,814	2,751	2,757	2,870	2,751	2,434
Machinery (electrical and nonelectrical).	10,669	11,019	11,107	10,660	10,874	10,786	6,943	7,133	7,030	6,890	7,030	6,309
Transportation equipment.....	10,230	10,337	10,492	10,195	10,257	10,821	1,496	1,493	1,491	1,535	1,476	1,585
All other durable goods industries.....	5,536	5,393	5,515	5,430	5,262	5,038	4,866	4,803	4,799	4,834	4,710	4,610
Nondurable goods industries, total.....	4,890	4,917	4,973	4,864	4,833	5,051	16,803	16,747	16,879	16,926	16,640	15,681
Chemicals and allied products.....	885	873	889	887	879	961	3,904	3,902	3,910	3,954	3,888	3,428
Petroleum and coal products.....	523	546	547	510	532	521	1,393	1,398	1,434	1,405	1,431	1,258
Rubber and plastics products, n.e.c.....	297	315	311	298	314	318	1,026	1,025	1,013	1,040	1,030	1,016
All other nondurable goods industries....	3,185	3,183	3,226	3,169	3,108	3,251	10,480	10,422	10,522	10,527	10,291	9,979

^pPreliminary.^rRevised.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this

definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories--End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.



New Orders Received and Unfilled Orders--

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.